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EXAMINER				
REDDY, KARUNA P				
ART UNIT		PAPER NUMBER		
1796				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

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# Office Action Summary

**Application No.**

10/579,096

**Applicant(s)**

KIRSCH ET AL.

**Examiner**

KARUNA P. REDDY

**Art Unit**

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This office action is in response to the appeal brief filed on 6/26/2008. Claims 1-25 are currently pending in the application. It is noted that examiner reopened prosecution of this case.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 10-20 and 24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 10 recites "di- C<sub>8</sub> to C<sub>12</sub> alkyl sulfates". While there is support for anionic emulsifier "alkali metal salts and ammonium salts of

alkyl sulfates (alkyl radical: C<sub>8</sub> to C<sub>12</sub>)", in the originally filed disclosure, there is no support for the claimed "~~di~~- C<sub>8</sub> to C<sub>12</sub> alkyl sulfates".

Claims 11-20 and 24 are dependent on claim 10 and subsumed by this rejection.

***Claim Rejections - 35 USC § 102/103***

6. Claims 10-11, 15-16, 20 and 24 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Auchter et al (US 2002/0052433 A1) as evidenced by Zhao et al (US 6,262,144 B1).

Auchter et al disclose a pressure sensitive adhesive comprising acrylate PSA dispersion and an aqueous rosin dispersion i.e. Tacolyn ®3179 (paragraph 0047). The Tacolyn ®3179 reads on the additive, a tackifier as evidenced by Zhao et al in col. 31, lines 28-29. To this is added 0.8% by weight of a solution comprising sodium di(2-ethylhexyl)sulfosuccinate (paragraph 0052). When the polymers or polymer dispersions are applied to a wide variety of substrates, the solution acts as a wetting agent. Very good surfaces can be obtained in particular with flexible substrates, such as polymer films (paragraph 0031).

Auchter et al differ with respect to the process of making aqueous polymer dispersion.

However, it is noted that claim 10 is a product-by-process claim and claims 11, 15-16, 20 and 24 are dependent on claim 10. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious

from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." See *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). In light of the above, it is clear that Auchter et al anticipates the presently cited claims.

Alternatively, in the event any differences can be shown for the product of the product-by-process claims of present application, as opposed to the product taught by Auchter, such differences would have been obvious to one of ordinary skill in the art as a routine modification of the product in the absence of a showing of unexpected results. As a practical matter, the Patent Office is not equipped to manufacture products by the myriad of processes put before it and then obtain prior art products and make physical comparisons therewith." *In re Brown*, 459 F.2d 531, 535, 173 USPQ 685, 688 (CCPA 1972).

#### ***Claim Rejections - 35 USC § 103***

7. Claims 10-13, 15-18, 20 and 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frazee (US 4,845,149) in view of Auchter et al (US 2002/0052433 A1).

Frazee discloses emulsion polymer pressure sensitive adhesives (abstract). See example 3, where DOWFAX® 2A1 anionic surfactant is present in the PSA formulation in an amount less than 0.25%. DOWFAX® 2A1 is sodium dodecyl diphenyloxide disulfonate. Other suitable anionic surfactants include alkyl sulfates such as lauryl sulfate, esters of sulfonated dicarboxylic acid, especially succinic acid (column 5, lines 43-47). Other PSA ingredients can be added to the present acrylic emulsion polymers to

provide a PSA with desired properties. These PSA ingredients include tackifiers, dyes, flow agents and the like. The PSA compositions are used in any pressure sensitive application and have desirable flow, coating and leveling characteristics on low energy surfaces. Such applications include tapes, stickers, labels, decals etc. (column 5, lines 50-63).

Frazee et al differ with respect to the process of making aqueous polymer dispersion and the presence of at least one salt of a monoalkyl or dialkyl ester of a sulfonated dicarboxylic acid.

However, Auchter et al teach the use of solution as a wetting agent in aqueous polymer dispersions that are applied to a wide variety of substrates as an adhesive (paragraphs 0002-0003). The solution comprises a salt of monoalkyl or dialkyl ester of a sulfonated dicarboxylic acid, in particular succinic acid (paragraph 0008-0009). When the polymer dispersions are applied to a wide variety of substrates, solution acts as a wetting agent and leads to the development of a smooth and flawless surface (paragraph 0031). Therefore, it would have been obvious to one skilled in the art at the time of invention to use salt of monoalkyl or dialkyl ester of a sulfonated dicarboxylic acid, in particular succinic acid, as a wetting agent because Frazee contemplates adding anionic surfactants such as esters of sulfonated dicarboxylic acid, especially succinic acid and Auchter et al teach that addition of a solution of a salt of monoalkyl or dialkyl ester of a sulfonated dicarboxylic acid, in particular succinic acid, to aqueous polymer dispersions gives substrates with a smooth and flawless surface by decreasing foaming tendency.

With respect to the process of making aqueous polymer dispersion, because of the nature of product-by process claims, Examiner cannot focus on the precise

difference between the claimed product and the disclosed product. It is then Applicants' burden to prove that an unobvious difference exists. See *In re Marosi*, 218 USPQ 289, 292-293 (CAFC 1983). In the instant case no *Graham vs. John Deere* analysis was made but rather the test set out in MPEP 706.03(e) and *In re Marosi* was applied while explaining why the claimed product does not patentably distinguish over the prior art under 35 USC 102/103. See also footnote 11 O.G. Notice 1162 59-61, wherein a 35 USC 102/103 rejection is authorized in the case of product-by-process claims because the exact identity of the claimed product or the prior art product cannot be determined by the Examiner.

8. Claims 14 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frazee (US 4,845,149) in view of Auchter et al (US 2002/0052433 A1) as applied to claim 10 above, further in view of Kleiner et al (WO 02/10306 A2).

The discussion with respect to Frazee in view of Auchter et al in paragraph 8 above is incorporated here by reference.

Frazee et al in view of Auchter et al is silent with respect to PVC film.

However, Kleiner et al teach pressure sensitive adhesive composition comprising acrylic emulsion polymer that exhibits high resistance to water and humidity (abstract). A particularly preferred surfactant for use in emulsion polymerization comprises about 0.5 to 1.5 % by weight of a sodium dialkyl sulfosuccinate wherein the alkyl group may have 1 to 18 carbon atoms (page 10, lines 25-26; page 11, lines 5-6). The PSA's have excellent adhesion to a wide variety of surfaces including nonpolar relatively low energy surfaces such as polyvinyl chloride (page 4, lines 18-22) and reads on the application of adhesive to PVC film of claims 14 and 19. Therefore, it would have been obvious to one

skilled in the art at the time of invention to use PVC film as a substrate because Frazee discloses that PSA compositions are used in pressure sensitive application on low energy surfaces and Kleiner et al teach that low energy surfaces include PVC and one of ordinary skill in the art would expect the PSA of Frazee in view of Auchter et al to work with low energy surfaces such as PVC films.

9. Claims 1-13, 15-18, 20-21, 23 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood et al (US 5, 286, 843) as evidenced by Pastorino et al (US 4,940,732), in view of technical data for Acronal® A 220 from BASF ([http://worldaccount.basf.com/wa/NAFTA/Catalog/FunctionalPolymers/pi/BASF/Brand/acronal\\_](http://worldaccount.basf.com/wa/NAFTA/Catalog/FunctionalPolymers/pi/BASF/Brand/acronal_)).

Wood et al discloses a process for improving water whitening resistance of a pressure sensitive adhesive containing an aqueous latex emulsion and water soluble ions by removing the water soluble ions. The preferred method of removing the water soluble ions is to contact either the aqueous latex emulsion, the formulated PSA containing the aqueous latex emulsion or both with ion exchange resin (abstract). The removal of water soluble ionic compounds in the dispersion can be accomplished by dialysis, deionization with ion exchange resin to increase the water resistance (column 1, lines 66-68, column 2, line 1).

The aqueous latex polymer may be formed from any monomer or mixture of monomers which yield a water soluble latex, film forming polymer. See example 1 for the weight percentages of alkyl acrylates in claim 3; 0.3 g Emcol® 4500 surfactant; and Drew® T-4201 defoamer which reads on the at least one additive of claim 11. Emcol® 4500 is "sodium dioctyl sulfosuccinate" as evidenced by Pastorino et al at column 4, lines

5-6 and reads on ionic emulsifier and water-soluble ionic compound of present claims.

The term "latex" refers to a water soluble polymer which may be prepared by conventional polymer techniques such as emulsion polymerization (column 3, lines 18-21). The removal of water-soluble ions from the aqueous latex polymer emulsion or PSA is critical to the operation (column 3, lines 61-63) is interpreted as 100% removal and reads on the at least 50% of claim 1 and at least 90% of claim 5. The PSA is used to adhere clear labels and decals to surfaces (column 3, lines 1-2). See example 4 wherein the PSA formulation is direct coated onto Mylar® film.

Wood et al is silent with respect to adding at least one salt of a monoalkyl or dialkyl ester of a sulfonated dicarboxylic acid after the removal of water-soluble ionic compound.

However, it is apparent, from technical data for Acronal® A 200, that wetting process on various substrates, with acrylic copolymer emulsions used in the manufacture of pressure sensitive adhesives, can be facilitated by the addition of 0.5 to 1.5% of a standard anionic surfactant such as sodium salt of dioctyl sulfosuccinate. Therefore, it would have been obvious to one skilled in the art at the time invention of invention to add sodium salt of dioctyl sulfosuccinate, in an amount of from 0.5 to 1.5% to the pressure sensitive adhesive, containing a latex aqueous emulsion, of Wood et al as evidenced by Pastorino et al, for improving wettability of the pressure sensitive adhesive on various substrates, if one skilled in the art can tolerate a small decrease in the improvement of water whitening resistance with a concurrent improvement in wettability property. Court held that the selection of a known material based on its suitability for its intended use supported a prima facie obviousness determination in *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945) and

that it is "Obvious to try" - choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success in KSR, 550 U.S. at \_\_\_, 82 USPQ2d at 1396.

10. Claims 1-13, 15-18, 20-21, 23 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood et al (US 5, 286, 843) as evidenced by Pastorino et al (US 4,940,732), in view of Auchter et al (US 2002/0052433 A1).

Wood et al discloses a process for improving water whitening resistance of a pressure sensitive adhesive containing an aqueous latex emulsion and water soluble ions by removing the water soluble ions. The preferred method of removing the water soluble ions is to contact either the aqueous latex emulsion, the formulated PSA containing the aqueous latex emulsion or both with ion exchange resin (abstract). The removal of water soluble ionic compounds in the dispersion can be accomplished by dialysis, deionization with ion exchange resin to increase the water resistance (column 1, lines 66-68, column 2, line 1).

The aqueous latex polymer may be formed from any monomer or mixture of monomers which yield a water soluble latex, film forming polymer. See example 1 for the weight percentages of alkyl acrylates in claim 3; 0.3 g Emcol® 4500 surfactant; and Drew® T-4201 defoamer which reads on the at least one additive of claim 11. Emcol® 4500 is "sodium dioctyl sufosuccinate" as evidenced by Pastorino et al at column 4, lines 5-6 and reads on ionic emulsifier and water-soluble ionic compound of present claims. The term "latex" refers to a water soluble polymer which may be prepared by conventional polymer techniques such as emulsion polymerization (column 3, lines 18-21). The removal of water-soluble ions from the aqueous latex polymer emulsion or

PSA is critical to the operation (column 3, lines 61-63) is interpreted as 100% removal and reads on the at least 50% of claim 1 and at least 90% of claim 5. The PSA is used to adhere clear labels and decals to surfaces (column 3, lines 1-2). See example 4 wherein the PSA formulation is direct coated onto Mylar® film.

Wood et al as evidenced by Pastorino et al, is silent with respect to adding at least one salt of a monoalkyl or dialkyl ester of a sulfonated dicarboxylic acid after the removal of water-soluble ionic compound.

However, Auchter et al teach that aqueous polymer dispersions generally comprise wetting agents, to achieve good substrate wetting and a largely smooth and flawless surface (paragraph 0003). A disadvantage when using wetting agents is the severe foaming which reaches a critical extent especially in the high-speed coating units which are customary nowadays, and prevents the development of flawless surfaces (paragraph 0005). The object of Auchter et al's invention is to provide wetting agents having an extremely low foaming tendency (paragraph 0006) which is achieved by the use of solution of a salt of a monoalkyl or dialkyl ester of a sulfonated dicarboxylic acid as wetting agent (paragraph 0007-0008). The solution is used as a wetting agent in amounts from 0.1 to 10 parts by weight per 100 parts by weight of polymer (paragraph 0027). Therefore, it would have been obvious to one skilled in the art at the time of invention to add a solution comprising salt of a monoalkyl or dialkyl ester of a sulfonated dicarboxylic acid as wetting agent, in amounts from 0.1 to 10 parts by weight per 100 parts by weight of polymer, to the pressure sensitive adhesive, containing a latex aqueous emulsion, of Wood et al as evidenced by Pastorino et al, for improving wettability of the pressure sensitive adhesive on various substrates and a reduction in foam formation during high speed coating to yield a smooth and flawless polymer

surface, if one skilled in the art can tolerate a small decrease in the improvement of water whitening resistance with a concurrent improvement in wettability property, reduced foam formation during high speed coatings and thus yield smooth and flawless polymer surface. Court held that it is "Obvious to try" - choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success in KSR, 550 U.S. at \_\_\_, 82 USPQ2d at 1396.

11. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wood (US 5, 286, 843) as evidenced by Pastorino et al (US 4,940,732), in view of technical data for Acronal® A220 from BASF ([http://worldaccount.basf.com/wa/NAFTA/Catalog/FunctionalPolymers/pi/BASF/Brand/acronal\\_](http://worldaccount.basf.com/wa/NAFTA/Catalog/FunctionalPolymers/pi/BASF/Brand/acronal_)) as applied to claim 6 above, and further in view of Nakabayashi et al (US 3, 964, 955).

The discussion with respect to Wood as evidenced by Pastorino et al, in view of technical data for Acronal® A220 from BASF in paragraph 9 above, is incorporated here by reference.

Wood as evidenced by Pastorino et al, in view of technical data for Acronal® A220 from BASF, is silent with respect to removal of at least one ionic compound by diafiltration.

However, Nakabayashi et al teach a method of removing metal ions from the dispersing medium of an emulsion by diafiltration or dialysis method (column 10, lines 41-43). Therefore, it would have been obvious to one skilled in the art at the time invention was made to use the diafiltration method to remove ionic compounds from the emulsion polymer dispersion of Wood as evidenced by Pastorino et al, in view of

technical data for Acronal® A220 from BASF, because Nakabayashi et al has proven successfully the removal of ionic components such as metal ions by diafiltration or dialysis method and one of ordinary skill in the art would expect the diafiltration method to work for the removal of water soluble ionic components in emulsion polymer dispersion of Wood as evidenced by Pastorino et al, in view of technical data for Acronal® A220 from BASF, motivated by expectation of success.

12. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wood et al (US 5, 286, 843) as evidenced by Pastorino et al (US 4,940,732) in view of Auchter et al (US 2002/0052433 A1) as applied to claim 6 above, and further in view of Nakabayashi et al (US 3, 964, 955).

The discussion with respect to Wood as evidenced by Pastorino et al, in view of Auchter et al in paragraph 10 above, is incorporated herein by reference.

Wood as evidenced by Pastorino et al, in view of Auchter et al is silent with respect to removal of at least one ionic compound by diafiltration.

However, Nakabayashi et al teach a method of removing metal ions from the dispersing medium of an emulsion by diafiltration or dialysis method (column 10, lines 41-43). Therefore, it would have been obvious to one skilled in the art at the time invention was made to use the diafiltration method to remove ionic compounds from the emulsion polymer dispersion of Wood as evidenced by Pastorino et al, in view of Auchter et al because Nakabayashi et al has proven successfully the removal of ionic components such as metal ions by diafiltration or dialysis method and one of ordinary skill in the art would expect the diafiltration method to work for the removal of water

soluble ionic components in emulsion polymer dispersion of Wood as evidenced by Pastorino et al in view of Auchter et al, motivated by expectation of success.

13. Claims 14, 19 and 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wood (US 5, 286, 843) as evidenced by Pastorino et al (US 4,940,732) in view of technical data for Acronal® A200 from BASF ([http://worldaccount.basf.com/wa/NAFTA/Catalog/FunctionalPolymers/pi/BASF/Brand/acronal\\_](http://worldaccount.basf.com/wa/NAFTA/Catalog/FunctionalPolymers/pi/BASF/Brand/acronal_)) as applied to claims 11, 13 and 18 above, and further in view of Kleiner et al (WO 02/10306 A2).

The discussion with respect to Wood as evidenced by Pastorino et al, in view of technical data for Acronal® A220 from BASF in paragraph 9 above, is incorporated here by reference.

Wood as evidenced by Pastorino et al, in view of technical data for Acronal® A220 from BASF is silent with respect to transparent polymer film being PVC; and additives.

However, Kleiner et al teach pressure sensitive adhesive composition comprising acrylic emulsion polymer that exhibits high resistance to water and humidity (abstract). A particularly preferred surfactant for use in emulsion polymerization comprises about 0.5 to 1.5 % by weight of a sodium dialkyl sulfosuccinate wherein the alkyl group may have 1 to 18 carbon atoms (page 10, lines 25-26; page 11, lines 5-6). Other additives well known in the art, for example wetting agents, thickeners may be added as appropriate for specific application (page 13, lines 1-4). The PSA's have excellent adhesion to a wide variety of surfaces including nonpolar relatively low energy surfaces such as polyvinyl chloride (page 4, lines 18-22) and reads on the application of adhesive

to PVC film of claims 14 and 19. Therefore, it would have been obvious to one skilled in the art at the time of invention to add other additives such as thickeners and use the PSA on PVC substrates because Kleiner has proven successfully that acrylic emulsion polymers comprising anionic surfactants (i.e. sodium dialkyl sulfosuccinate wherein the alkyl group may have 1 to 18 carbon atoms) have excellent adhesion to low energy surfaces such as PVC and can contain well known additives in the art i.e. thickeners and one of ordinary skill in the art would expect the addition of thickener to PSA and the use of PSA of Wood as evidenced by Pastorino et al, in view of technical data for Acronal® A220 from BASF to work on PVC films, motivated by expectation of success.

14. Claim 14, 19 and 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wood et al (US 5, 286, 843) as evidenced by Pastorino et al (US 4,940,732) in view of Auchter et al (US 2002/0052433 A1) as applied to claims 11, 13 and 18 above, and further in view of Kleiner et al ((WO 02/10306 A2).

The discussion with respect to Wood as evidenced by Pastorino et al in view of Auchter et al in paragraph 10 is incorporated herein by reference.

However, Kleiner et al teach pressure sensitive adhesive composition comprising acrylic emulsion polymer that exhibits high resistance to water and humidity (abstract). A particularly preferred surfactant for use in emulsion polymerization comprises about 0.5 to 1.5 % by weight of a sodium dialkyl sulfosuccinate wherein the alkyl group may have 1 to 18 carbon atoms (page 10, lines 25-26; page 11, lines 5-6). Other additives well known in the art, for example wetting agents, thickeners may be added as appropriate for specific application (page 13, lines 1-4). The PSA's have excellent adhesion to a wide variety of surfaces including nonpolar relatively low energy surfaces

such as polyvinyl chloride (page 4, lines 18-22) and reads on the application of adhesive to PVC film of claims 14 and 19. Therefore, it would have been obvious to one skilled in the art at the time of invention to add other additives such as thickeners and use the PSA on PVC substrates because Kleiner has proven successfully that acrylic emulsion polymers comprising anionic surfactants (i.e. sodium dialkyl sulfosuccinate wherein the alkyl group may have 1 to 18 carbon atoms) have excellent adhesion to low energy surfaces such as PVC and can contain well known additives in the art i.e. thickeners and one of ordinary skill in the art would expect the addition of thickener to PSA and use of PSA of Wood as evidenced by Pastorino et al in view of Auchter et al to work on PVC films, motivated by expectation of success.

### ***Response to Arguments***

15. Applicant's arguments, filed 6/26/2008, with respect to rejection of claims 1-25 under 35 U.S.C. § 112, first paragraph; claims 1-13, 15-18, 20-21 and 23 under 35 U.S.C. § 102(b) as anticipated by Wood (5,286,843) as evidenced by Pastorino et al (US 4,940,732); and claims 1-13, 15-18, 20-21 and 23 under 35 U.S.C. § 102(b) as anticipated by Wood (5,536,811) as evidenced by Pastorino et al (US 5,536,811), have been fully considered and are persuasive. The rejection of claims 1-25 under 35 U.S.C. § 112, first paragraph; claims 1-13, 15-18, 20-21 and 23 under 35 U.S.C. § 102(b) as anticipated by Wood (5,286,843) as evidenced by Pastorino et al (US 4,940,732); and claims 1-13, 15-18, 20-21 and 23 under 35 U.S.C. § 102(b) as anticipated by Wood (5,536,811) as evidenced by Pastorino et al (US 5,536,811) has been withdrawn in view of the amendment to claim 1.

16. Applicant's arguments filed 6/26/2008 have been fully considered but they are not persuasive. Specifically, applicant argues that (A) Without the present disclosure as a guide, one skilled in the art would not have combined Wood '843 with BASF. Wood '843 discloses the necessity for removing ionic compounds from polymer dispersions. Why, absent the present disclosure as a guide, would one skilled in the art remove such ionic compounds and then add back an ionic compound with any expectation of success?; (B) examples in the specification at page 10, line 30 through the end of page 12, exemplify various commercially customary polymer dispersions, including Acronal® A220, both treated according to the present invention and untreated. Table 1 therein shows water whitening of the untreated Acronal® A220. One skilled in the art reading BASF might expect better wetting action after adding sodium salt of dioctyl sulfosuccinate to Acronal® A 200 but would also expect water whitening behavior, in view of Wood '843's disclosure of the deleterious effects of ionic compounds; and (C) Examiner holds that it would have been obvious to add other additives such as thickeners to, presumably the adhesive obtained by the method of Wood '843 as modified by BASF in view of Kleiner et al. The aqueous polymer dispersion of the rejected claims ultimately depend on claim 10 and would necessarily exclude the required tetrasodium (N-dicarbox-alkyl) N-alkyl sulfosuccinamate of Kleiner et al, as well as the optional ammonium or sodium salts of sulfated alkylphenoxy poly(ethyleneoxy) ethanol of Kleiner et al, since they are not within the terms of the anionic surfactant Markush group therein. When less than 100 mol% of the water-soluble ionic compound component is removed, any anionic surfactant originally present that remains is limited to the anionic surfactant recited in the Markush groups. Thus claim 10, excludes the above discussed compounds of Kleiner et al. If

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one skilled in the art would have combined Kleiner et al with Wood '843 as modified by BASF, that person would have included all the required components of Kleiner et al. Clearly, it would not have been obvious to exclude a required component.

With respect to (A) and (B), it is apparent from the teachings of Wood '843, technical data for Acronal® A220 from BASF and Auchter et al, that water soluble ionic compounds such as sodium dioctyl sulfosuccinate function as surfactants i.e. surface active agents as well as wetting agents. It is the examiner's position that one skilled in the art would recognize that removal of water soluble ionic compounds such as sodium dioctyl sulfosuccinate would result in poor wettability property. Furthermore, Auchter et al teach advantages (i.e. reduction in foam formation during high speed coating to yield a smooth and flawless polymer surface), of adding solution comprising salt of a monoalkyl or dialkyl ester of a sulfonated dicarboxylic acid to acrylic PSA's. It is the examiner's position that post addition of some amount of the water-soluble ionic compounds such as sodium dioctyl sulfosuccinate is within the scope of a skilled artisan, if one skilled in art can tolerate some loss in water whitening resistance but obtain a PSA with concurrent improvement in wettability property and reduction in foam formation during high speed coating to yield a smooth and flawless polymer surface.

With respect to (C), one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Applicant argues "if one skilled in the art would have combined Kleiner et al with Wood '843 as modified by BASF, that person would have included all the required components of Kleiner et al." To reiterate examiner's position, it is noted that Kleiner et al is used for its teaching that addition of thickeners to acrylic

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PSA's is well known in the art and acrylic PSA's containing surfactants such as sodium dialkyl sulfosuccinate wherein the alkyl group may have 1 to 18 carbon atoms, have excellent adhesion to a wide variety of surfaces including nonpolar relatively low energy surfaces such as polyvinyl chloride.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KARUNA P. REDDY whose telephone number is (571)272-6566. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Karuna P Reddy/

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Examiner, Art Unit 1796

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Supervisory Patent Examiner, Art Unit 1796